

University of Wollongong

## Research Online

---

Faculty of Health and Behavioural Sciences -  
Papers (Archive)

Faculty of Science, Medicine and Health

---

January 2010

### Examining opportunities for promotion of healthy eating at children's sports clubs

Bridget P. Kelly  
*University of Wollongong, [bkelly@uow.edu.au](mailto:bkelly@uow.edu.au)*

Louise Baur

Adrian Bauman

Lesley King  
*NSW Centre for Overweight and Obesity, Uni of Syd*

Follow this and additional works at: <https://ro.uow.edu.au/hbspapers>



Part of the [Arts and Humanities Commons](#), [Life Sciences Commons](#), [Medicine and Health Sciences Commons](#), and the [Social and Behavioral Sciences Commons](#)

---

#### Recommended Citation

Kelly, Bridget P.; Baur, Louise; Bauman, Adrian; and King, Lesley: Examining opportunities for promotion of healthy eating at children's sports clubs 2010, 583-588.  
<https://ro.uow.edu.au/hbspapers/563>

Research Online is the open access institutional repository for the University of Wollongong. For further information contact the UOW Library: [research-pubs@uow.edu.au](mailto:research-pubs@uow.edu.au)

---

## Examining opportunities for promotion of healthy eating at children's sports clubs

### Abstract

**Objective:** Australian data indicate that 63% of children participated in sport in 2009, a 4% increase since 2000. Children's high participation in sport, and the association between sport and health, means that these settings provide an opportunity to promote other aspects of health, such as healthy eating, to children. This study aimed to determine healthy eating practices and policies at children's sports clubs.

**Methods:** Sports clubs (n=108) for the nine most popular sports for children aged 5 to 14 were randomly sampled from three large geographical areas across one state and one territory in Australia. A purpose-designed telephone questionnaire for sports club officials was developed to determine the food and beverages sold, provided and promoted at sports clubs and the availability of healthy-eating policies.

**Results:** The most frequently sold item at canteens was water, followed by sports drinks, chocolate/confectionery and soft drink. Only 20% of canteens promoted healthy food. Thirty-nine per cent of clubs made recommendations on the food and beverages to be consumed during sport, mostly relating to water consumption. The majority (76%) engaged in fundraising; many in collaboration with chocolate/confectionery companies. Only three clubs had a written policy on healthy eating. **Conclusion:** Addressing the low uptake of healthy eating policies would be a useful strategy to improve the healthiness of sports clubs. **Implications:** Policies could seek to reduce the availability and promotion of unhealthy food and beverages through canteens, vending machines and fundraising.

### Keywords

healthy, promotion, eating, opportunities, clubs, children, sports, examining

### Disciplines

Arts and Humanities | Life Sciences | Medicine and Health Sciences | Social and Behavioral Sciences

### Publication Details

Kelly, B. P., Baur, L., Bauman, A. & King, L. 2010, 'Examining opportunities for promotion of healthy eating at children's sports clubs', *Australian and New Zealand Journal of Public Health*, vol. 34, no. 6, pp. 583-588.

# Examining opportunities for promotion of healthy eating at children's sports clubs

**Bridget Kelly, Louise A. Baur, Adrian E. Bauman, Lesley King**

*Prevention Research Collaboration, School of Public Health, University of Sydney, New South Wales*

**Kathy Chapman**

*Cancer Council New South Wales*

**Ben J. Smith**

*Department of Health Social Science, Monash University, Victoria*

The nutritional status of Australians is typified by an increasing intake of unhealthy, non-core food and beverages. In particular, data from national dietary surveys of children indicate that fruit and vegetable intake is well below recommended levels, with only 1-2% of older children meeting the recommended three serves of fruit (not including juice), and only about one-quarter of younger children and 1-11% of older children meeting the guideline for vegetable intake.<sup>1</sup> Childhood obesity is a major concern, with 23% of Australian children aged 2 to 16 years carrying excess weight.<sup>1</sup>

Settings play a central role in the delivery of health promotion interventions, enabling the implementation of a socio-ecological approach that addresses determinants of health beyond those at the level of the individual.<sup>2</sup> Health promoting sports clubs have been proposed as one method of embedding health promotion into everyday activities.<sup>3</sup>

Sports clubs provide a potentially attractive health promotion setting, particularly for obesity prevention. In addition to creating opportunities for physical activity, which comprises an important element of energy balance, the creation of health promoting sports clubs may support the promotion and adoption of a broader

range of healthy behaviours by children, such as healthy eating.<sup>4</sup> As well, children's participation in organised sport is high, with 1.7 million children participating in at least one organised sport outside of school hours in 2009.<sup>5</sup>

Three potential mechanisms that may be employed by sport settings to promote health include:

- the use of promotional strategies, which seek to raise awareness and change attitudes and beliefs;
- education, to improve health-related knowledge; and
- structural change to create supportive environments, including policy implementation, legislation and environmental changes.<sup>6</sup>

More specifically, Kokko and colleagues outlined 15 standards for the development and success of health promoting sports clubs, as determined by group consensus of 27 health promotion experts and sports club officials.<sup>7</sup> These standards include, among others, the need for written policies on health promotion/health education/healthy lifestyle; club supervision of the implementation and functionality of its policies; the agreement of all club sub-groups with club policies; consideration of health observed in club decision making processes; health promotion

## Abstract

**Objective:** Australian data indicate that 63% of children participated in sport in 2009, a 4% increase since 2000. Children's high participation in sport, and the association between sport and health, means that these settings provide an opportunity to promote other aspects of health, such as healthy eating, to children. This study aimed to determine healthy eating practices and policies at children's sports clubs.

**Methods:** Sports clubs (n=108) for the nine most popular sports for children aged 5 to 14 were randomly sampled from three large geographical areas across one state and one territory in Australia. A purpose-designed telephone questionnaire for sports club officials was developed to determine the food and beverages sold, provided and promoted at sports clubs and the availability of healthy-eating policies.

**Results:** The most frequently sold item at canteens was water, followed by sports drinks, chocolate/confectionery and soft drink. Only 20% of canteens promoted healthy food. Thirty-nine per cent of clubs made recommendations on the food and beverages to be consumed during sport, mostly relating to water consumption. The majority (76%) engaged in fundraising; many in collaboration with chocolate/confectionery companies. Only three clubs had a written policy on healthy eating.

**Conclusion:** Addressing the low uptake of healthy eating policies would be a useful strategy to improve the healthiness of sports clubs.

**Implications:** Policies could seek to reduce the availability and promotion of unhealthy food and beverages through canteens, vending machines and fundraising.

**Key words:** sport, children, nutrition, health promotion, fundraising.

*Aust NZ J Public Health.* 2010; 34:583-8  
doi: 10.1111/j.1753-6405.2010.00619.x

**Submitted:** February 2010

**Revision requested:** April 2010

**Accepted:** April 2010

### Correspondence to:

Ms Bridget Kelly, Prevention Research Collaboration, Level 2, K25 Medical Foundation Building, University of Sydney, New South Wales 2006. Fax: (02) 9036 3184; e-mail: [bridget.kelly@sydney.edu.au](mailto:bridget.kelly@sydney.edu.au)

as part of coaching practice; and a health promotion element in coaching, beyond sports performance.<sup>7</sup>

To apply these standards to the promotion of healthy eating within children's sports clubs, it would be desirable for good nutrition to be promoted repeatedly and consistently in all club activities. As well, an important component of creating supportive environments that promote healthy eating is the development and enforcement of related written policies, and these must be endorsed and adopted by all club officials, including coaches.

Earlier Australian research examining promotion of healthy eating in children's sports clubs have found a low proportion of sports clubs with healthy catering or eating policies.<sup>8,9</sup> In one study of 561 sports clubs with canteen facilities in Victoria, 75% reported that they had no plans for a healthy catering policy.<sup>8</sup> Importantly, those clubs with a written policy were significantly more likely to provide at least one healthy choice at their canteen.<sup>8</sup> Other research from New South Wales (NSW) has also identified that the majority of food and beverages sold at sports canteens were perceived to be mostly unhealthy by parents attending these venues.<sup>9</sup>

As well as providing opportunities for the broader promotion of health to children, the creation of health promoting sports clubs may also have implications on children's participation in sport. In a survey of peak sporting organisations in Victoria ( $n=51$ ), the creation of healthy and welcoming club environments were thought to increase participation and membership of their sport by almost all (97%) sport officials.<sup>10</sup>

Previous Australian research examining healthy eating promotion in children's sports clubs has not examined the nature of food promotion across all club activities. Determining the extent to which healthy food (or otherwise) is promoted to children across all facets of sports clubs is important to firstly identify any contradictory health messages received by children in these settings, and secondly, to identify where any future efforts to create health promoting sports clubs should be directed. This study aimed to examine the extent of healthy eating promotion practices within community level junior sports clubs across one state and one territory in Australia, including the foods sold, provided and promoted by clubs, and the existence of healthy eating policies.

## Methods

### Sampling

Australian Bureau of Statistics (ABS) data on children's participation in organised sporting activities were used to determine the nine most popular organised sports for children aged 5 to 14 years in NSW, the most populous state in Australia. These included outdoor soccer (20% participation), swimming (17%), netball (9%), rugby league (8%), tennis (6%), outdoor cricket (5%), martial arts (4%), basketball (4%) and athletics/track and field (3%).<sup>11</sup>

A sample of community level children's sports clubs was selected from three large geographical areas in NSW and the Australian Capital Territory (ACT) including the Sydney and Illawarra Statistical Divisions and the Canberra/Queanbeyan Statistical District.

Local Government Areas (LGAs) within these Statistical Divisions/Districts were classified according to their socio-economic status (SES) using the ABS Socio-Economic Indexes for Areas (SEIFA) Index of Advantage/Disadvantage; a continuum of advantage to disadvantage.<sup>12</sup> LGAs were then stratified according to high, medium and low SEIFA tertiles, and also according to regional (Illawarra and Canberra/Queanbeyan) or metropolitan (Sydney) locality. Five LGAs were randomly sampled from each of these strata, including: low, medium and high SES urban strata, and a regional stratum. This produced a sampling frame of 20 LGAs. A comprehensive list of all sports clubs for the nine most popular children's sports in each sampled LGA was obtained by searching internet directories and by contacting local councils and regional sporting associations/peak sporting bodies.

Finally, three sports clubs for each sport, within each demographic area were randomly sampled from this stratified list of 20 LGAs ( $n=108$ ; four socio-demographic areas, nine sports in each area, three clubs for each sport). Eligible clubs included those with at least some playing members aged five to 14 years and those involved in competition sport.

## Measures

A purpose-designed semi-structured telephone questionnaire was developed. This was informed by previous surveys relating to health promotion at sports clubs<sup>7-10</sup> and by speaking with other researchers.

The survey included questions relating to: the characteristics of sports clubs; the most frequently sold food and beverages at club canteens; the contents of available vending machines; and food and beverages provided to players by coaches, using a comprehensive list of items; as well as food and beverage guidance given to players; the availability of written policies on healthy eating; and the nature of fundraising activities.

The questionnaire was initially piloted with a convenience sample of persons working in a sport-related field, sports club officials and persons working/volunteering at sports clubs ( $n=8$ ).

Telephone interviews with sports club officials, including club executive committee members, were conducted between August and October 2009. Each interview lasted approximately 20 minutes. Club representatives not contacted after six attempts (four during business hours and two after-hours) or those that were ineligible to participate were recorded as outside the scope of the survey.

All interviews were conducted by two trained research officers. Sports clubs were contacted by telephone to advise them of the survey and assess eligibility. Clubs were then sent an information letter, and contacted again to conduct the interview.

Ethics approval for this survey was granted by The University of Sydney Human Ethics Committee in June 2009.

## Analyses

Data were entered into SPSS for Windows version 17.0 (SPSS Inc., Chicago, IL). Descriptive analyses were conducted to describe the demographic characteristics of the sample and the frequency

of food and beverage promotions/provision and written policies on healthy eating. Pearson's Chi-square test was used to identify significant differences in the types of food and beverages most frequently sold in canteens according to club type. Results were considered significant at the  $\alpha=0.05$  level.

## Results

### Sports club characteristics

The overall survey response rate was 99% (108/109) with only one club declining participation. The highest proportion of clubs were from areas of greater social disadvantage and had more than 200 playing members (Table 1).

The majority of clubs were affiliated with regional (60%) and state-based sporting associations (70%), with which they had at least some direct contact. Communication with these organisations was primarily directed via email (92% of affiliated clubs), meetings (68%), and through associations' websites (61%).

**Table 1: Sports club characteristics.**

	Number of clubs n (%)
Socioeconomic status <sup>a</sup>	
Low	48 (44)
Middle	42 (39)
High	18 (17)
Location	
Greater Sydney	43 (40)
Illawarra	44 (41)
Canberra/Queanbeyan	21 (19)
Number of playing members	
<50	7 (6)
50-99	18 (17)
100-149	22 (20)
150-199	18 (17)
>200	43 (40)

Note: a) Based on the Australian Bureau of Statistics Socio-Economic Indexes for Areas (SEIFA) Index of Advantage/Disadvantage<sup>9</sup>

### Frequently sold food and beverage items at canteens

Overall, 71 sports clubs had a canteen at their home ground. The most frequently sold food and beverage item at club canteens, as reported by club officials, was water; with 18% of those clubs with canteens reporting that this was the highest selling item and 66% reporting that this was one of the top five items sold (Figure 1). Fifty-eight per cent of clubs reported that sports drinks were in the top five sold items, while 52% sold chocolate and confectionery, 51% sold soft drink, 44% sold sausage sandwiches and 42% sold pies and pastries most frequently.

Water was reported to be the top selling food or drink item at sports clubs from low SES areas (21%), while bacon and egg sandwiches were the single most frequently sold at clubs in medium SES areas (19%), and sausage sandwiches in high SES areas (33%). Further, water was reported as one of the top five items sold by 75% of clubs in low SES areas, 58% in both medium SES areas and 63% in high SES areas (ns,  $p=0.4$ ). In high SES areas, sports drinks were the most frequently reported as one of the top five items sold (67%).

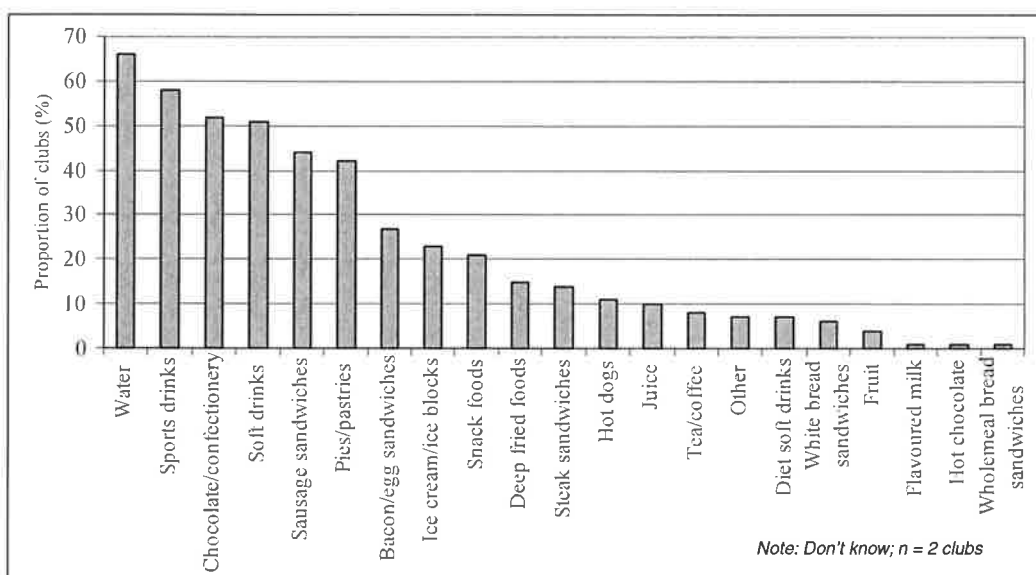
### Promotion of healthy food and beverages at canteens

Only 20% of clubs with a canteen reported that they actively promoted healthy food and beverages. Promotional activities included displaying healthy items in a prominent position ( $n=8$ ), offering healthy items at a discount ( $n=2$ ), announcing healthy canteen items over the public announcement system ( $n=1$ ), handing out menus with healthy choices ( $n=1$ ), and promoting healthy items on posters ( $n=1$ ), in the club newsletter ( $n=1$ ) and/or on the club website ( $n=1$ ).

Free tap water was available at the majority of canteens (62%) and playing areas (84%).

### Vending machines

Few clubs had a vending machine at their home ground (15%).



**Figure 1: Food and drink items reported in the top five products sold at canteens.**

The most common food and drink items in vending machines were regular soft drinks, diet soft drinks, water and sports drinks (Table 2).

### Club food and beverage recommendations

Thirty-nine per cent of clubs reported that they made recommendations to players on the types of food and beverages that should be brought to the club and/or consumed prior to training and competitions.

These recommendations mostly related to bringing water to games and training (n=18), while three of these clubs specifically encouraged children to drink water rather than sugary drinks. Some recommendations were less clear and simply encouraged children to bring a drink bottle (n=5), or specifically encouraged children to consume sports drinks as an alternative to water at all times (n=1) or during the finals/hot weather (n=2). Some clubs recommended children avoid certain foods before competitions, such as milk (n=1), fast food (n=1), confectionery (n=1) or oranges (n=1), or instructed players to have only small portions (n=1) or nothing at all immediately before play (n=1). Fruit, such as bananas, were encouraged by three clubs. Other foods such as sandwiches (n=2), nuts (n=1), muesli bars (n=1) and flavoured milk, or more generally, carbohydrates (n=1), were recommended before competitions.

Food and beverage recommendations were mostly communicated to players during coaching sessions (60% of clubs with recommendations) and/or by word-of-mouth (41%). Some clubs also included these recommendations in their newsletters (14%), at registration (7%), in e-mails or letters home to parents (7%), on their notice board (5%) and/or on their website (2%).

### Provision of food and beverages by coaches

Coaches at 28% of sports clubs provided at least some food or drink to players. The most frequently given item was water; given to players by coaches at 53% of these clubs. Chocolate and confectionery were also commonly provided (40%), as well as fruit (33%).

Only four clubs provided recommendations to coaches on the types of food and beverages that should be provided to players. These recommendations related to only providing water as a drink

(n=3), providing soft drink only after the grand final (n=1) and/or discouraging soft drink at any time (n=1).

### Written policy on healthy eating

Only three clubs reported that they had a written policy on healthy eating. Eleven clubs also reported that they were planning to develop a policy. Some of these clubs were actively involved in providing information to players or parents on healthy eating (n=4), making their canteen healthier, including applying for a food license to sell fresh food (n=2) or providing a healthy breakfast/meal to players (n=2).

### Frequency of fundraising activities at sports clubs

The majority of sports clubs (76%) reported that their club engaged in at least some form of fundraising; most frequently a raffle (60% of those clubs engaged in any fundraising) (Table 3). Prizes in raffles included meat trays (n=15), sports merchandise/clothing (n=15), vouchers for local (non-food) businesses (n=8), food hampers (n=4), money (n=4), electronic equipment (n=3) tickets to sporting matches (n=2), cases of beer (n=2), bikes (n=2) and a range of other items such as a car, fruit and vegetable baskets, movie tickets and holidays (all n=1).

A range of other fundraising activities were also reported including activity-based events, such as bike rides and gala days (n=6), sunscreen drives (n=2), food stalls at events (selling sausage rolls, soft drink and water) (n=2), fundraising nights at local fast food restaurants where contributions were made to clubs based on the sale of food and beverages (n=2), and donut and pie drives (n=1).

For those sports clubs that engaged in fundraising activities, the majority (70%) reported that business or companies contributed to, or were involved in these activities. Overall, 101 different businesses or companies were reported to be involved in fundraising activities across the sample, of which 49% were food or beverage companies or food related businesses, 9% were for alcohol related businesses (such as bars and clubs) and 42% were for non-food related businesses or companies.

Specifically, the greatest proportion of food and beverage companies contributing to fundraising were chocolate and confectionery companies, predominantly through chocolate drives (39% of all food and beverage companies), and local butchers, through the provision of free or discounted meat for barbeques (29%).

**Table 2: Frequency of food and drink items sold in vending machines at sports clubs.**

Food type	Number of vending machines (n=16) n (%)
Regular soft drinks	11 (69)
Diet soft drinks	11 (69)
Water	10 (63)
Sports drinks	10 (63)
Chocolate and confectionery	6 (38)
Muesli bars	4 (25)
Snack foods, such as chips, cakes, muffins or biscuits	3 (38)
Juice	2 (13)
Coffee	2 (13)

**Table 3: Frequency of different fundraising activities at sports clubs.**

Fundraising activity	Number of clubs (n=82) n (%)
Raffle	49 (60)
Barbeque (sausages)	46 (56)
Canteen profits	34 (42)
Trivia/Entertainment night	28 (34)
Chocolate drive	27 (33)
Other	21 (26)
Fundraising levy	8 (10)
Cake drive	6 (7)

## Discussion

Data from the ABS indicated that in 2009, 63% of all children aged 5 to 14 years had participated in any organised sport in Australia, representing a 4% increase since 2000.<sup>5,13</sup> As well, data from NSW comparing the time spent in organised moderate to vigorous physical activity, such as sport, between 1997 and 2004 has shown an increase of between seven and 49 minutes per day, depending on the season and demographic group.<sup>14</sup> This high and increasing uptake of organised sport by children, and the inherent association between sport and health, means that these settings may provide an ideal opportunity to integrate other aspects of health promotion into children's milieu.<sup>10</sup> This study provides important information of the extent of policies and practices related to healthy eating within children's sports clubs in Australia.

While water was reported as the top selling food and beverage item at canteens by the greatest proportion of clubs, other top selling items were less desirable including sports drinks, chocolate and confectionery, soft drink, sausage sandwiches and pies and pastries. As well, while healthier food and drinks, such as fruit and sandwiches, were available at some canteens, few clubs actively promoted these options.

More promisingly, almost 40% of sports clubs provided recommendations to players on the types of food and drinks that should be consumed by players; largely encouraging children to preferentially drink water. Water was also the item most frequently provided to players by coaches, although other less healthy items were also given, including chocolate and confectionery.

Very few clubs reported that they had a written policy on healthy eating, although there was some evidence that sports clubs were introducing other opportunities to promote healthy eating, such as through healthy food at events and the provision of nutrition information to players. One particularly impressive example was a club that held a program where hot, healthy meals were provided to disadvantaged and Indigenous children, as part of a sport workshop.

These findings are supported by previous Australian surveys on the uptake of health related policies by sports clubs.<sup>15,16</sup> In one evaluation of 10 sports clubs in Victoria, while smoke-free venues and sun protection measures were widespread across clubs, responsible alcohol service and the provision of healthy food were more difficult to achieve.<sup>15</sup> Further, research by Crisp and colleagues also found that the implementation of policies relating to healthy eating were less achievable than other areas of health promotion.<sup>15</sup> The authors concluded that the absence of simple guidelines, such as recommending the provision of fruit and vegetables, prevented the realisation of policy guidelines on healthy food provision.<sup>15</sup> While the number of sports clubs included in that study was limited, these findings were supported by similar evaluations conducted in Western Australia.<sup>16</sup>

The development of written policies does not directly translate into tangible structural change at the club level.<sup>15</sup> Other critical factors, such as the communication of written policies, are essential for successful implementation. People at all levels within sports clubs need to be aware of such policies, understand why

such policies have been adopted, and how to comply.<sup>17</sup> However, the adoption of written policies can help to establish a healthy culture within clubs, by guiding actions and outlining acceptable behaviours, and can assist in maintaining a club's commitment to this healthy culture over the long-term, such as when a new executive committee is appointed.

In a survey of sports clubs by Dobbinson and colleagues, a factor identified as being associated with the establishment of health promotion policies included having a designated person responsible for policy development.<sup>8</sup> Reported barriers to the development of policies included the lack of training, advice and resources available to develop and monitor policies.<sup>8</sup> Other barriers to policy development that have been reported in other studies include a lack of information about the health related area, limited resources, no directive to develop policies from peak sporting bodies, not seeing such plans as necessary or relevant,<sup>17</sup> the perceived costs involved, structural impediments and other pressing club issues.<sup>15</sup> The removal of these barriers is important to assist sports clubs to develop their own healthy policies.

Unfortunately, evidence on the efficacy of sports clubs as settings for health promotion is lacking. A systematic review of the evidence in 2008 indicated that there were no evaluation studies relating to policy intervention through sports clubs for healthy eating, or other areas of health promotion.<sup>4</sup> Such policy evaluation is considered difficult, as it requires the assessment of whether the intervention strategy resulted in policy development; the policy development produced the desired behavioural or environmental change; and that this in turn contributed to the health outcome.<sup>4</sup> Nevertheless, evaluation is important to determine the health promotion outcomes of policy setting for sports clubs, and the specific contexts and processes, which contribute most to policy success.

While there have been no well-controlled policy evaluation studies, there have been major policy initiatives for delivering health promotion messages through sport in Australia, although evidence regarding their effectiveness in promoting healthy eating awareness, knowledge or behaviours is lacking. One such policy initiative has been through health promotion foundations, such as VicHealth in Victoria and HealthWay in Western Australia. These health promotion foundations were established by government following the introduction of tobacco sponsorship regulations, whereby financial assistance was provided to sport and event organisers to offset this loss in sponsorship.<sup>18</sup> Through this funding, health promotion foundations were able to reach a wide variety of organisations, and link this financial support with opportunities to more broadly promote health in the sport and recreation sector.<sup>18</sup> For example, funding is provided by VicHealth to state sporting bodies on the proviso that sports clubs develop and implement policies related to six key focus areas, including healthy eating.<sup>19</sup> These health outcomes are expected to be reflected through both written policies and practices at the state sporting organisation level, and in practice (and policy where applicable) at the club level.<sup>19</sup>

Alternatively, as most clubs were affiliated with regional or state sporting organisations, these organisations may provide an



ideal avenue through which to introduce health related policies at the club level and assist in overcoming barriers related to knowledge and resources. As many clubs frequently visited these organisations' websites for information, the provision of sample policies could be provided through this mechanism.

As well, while Australian State and Territory Governments have recognised the importance of promoting healthy food and beverages to children through school canteens, with healthy school canteen policies now in place across most states and territories,<sup>20</sup> canteens at sporting venues have so far been neglected from this mandate. However, several preliminary trials of healthy sports canteens are currently being implemented across NSW. One in particular, being trialed by the Sydney West Area Health Service and the NSW Department of Sport and Recreation, is the Healthier Food and Drink Choices in Sporting Organisations project, which has demonstrated that the provision of healthy food at sports canteens is possible, and even profitable.<sup>21</sup>

This study has some limitations. In particular, self-report by sports club officials was used to determine the extent of healthy eating practices and policies at sports clubs. Other measures, such as auditing the canteen for the most frequently sold food and beverages may be a more valid measure. However, a major strength of this study was the high survey completion rate achieved and the use of a representative sample of sports clubs, with a mix of clubs from different socio-economic and demographic areas. Further, sports clubs were approached directly, rather than through regional or state sporting organisations. Previous research has indicated that while peak sporting bodies may have knowledge of the processes they have undertaken to facilitate health promotion at community level sports clubs, the clubs themselves are ultimately responsible for the implementation of these practices.<sup>3</sup>

As well as promoting physical activity, organised sport offers an opportunity to contribute to a range of other health promotion goals, such as healthy eating, to large numbers of children. Addressing the current low uptake of healthy eating policies would be a useful strategy to improve the healthiness of sports clubs. Policies related to healthy eating could seek to reduce the preponderance of unhealthy food and beverages that are available and promoted at sports clubs; through canteens, vending machines and fundraising.

## Funding

This work was supported by Cancer Council NSW and the Australian Research Council (ARC Linkage Project: LP0989387).

## Acknowledgements

We are very thankful for the enthusiastic and generous contribution of participating sports clubs. We are also grateful to Shay Saleh for her diligence in conducting interviews.

## References

1. Department of Health and Ageing. 2007 Australian National Children's Nutrition and Physical Activity Survey – Main Findings [report on the Internet]. Canberra (AUST): Commonwealth of Australia; 2008 [cited 2009 Jul 2]. Available from: <http://www.health.gov.au/internet/main/publishing.nsf/Content/phd-nutrition-childrens-survey>
2. Whitelaw S, Baxendale A, Bryce C, MacHardy L, Young I, Witney E. 'Settings' based health promotion: a review. *Health Promot Int*. 2001;16(4):339-53.
3. Kokko S, Kannas L, Villberg J. Health promotion profile of youth sports clubs in Finland: club officials' and coaches' perceptions. *Health Promot Int*. 2009;24(1):26-35.
4. Priest N, Armstrong R, Doyle J, Waters E. *Policy Interventions Implemented through Sporting Organisations for Promoting Healthy Behaviour Change* (Cochrane Review). In: The Cochrane Database of Systematic Reviews; 4, 2008. Chichester (UK): John Wiley and Sons; 2008.
5. Australian Bureau of Statistics. 4901.0 – Children's Participation in Cultural and Leisure Activities, Australia, Apr 2009 [report on the Internet]. Canberra (AUST): ABS; 2009 [cited 2010 Feb 15]. Available from: <http://www.abs.gov.au/ausstats/abs@.nsf/mf/4901.0>
6. National Health and Medical Research Council. *Health Promoting Sport, Arts and Racing Settings* [report on the Internet]. Canberra (AUST): NHMRC; 1996 [cited 2009 Dec 2]. Available from: [https://www.nhmrc.gov.au/\\_files\\_nhmrc/file/publications/synopses/withdrawn\\_hp2.pdf](https://www.nhmrc.gov.au/_files_nhmrc/file/publications/synopses/withdrawn_hp2.pdf)
7. Kokko S, Kannas L, Villberg J. The health promoting sports club in Finland – a challenge for the settings-based approach. *Health Promot Int*. 2006;21(3):219-29.
8. Dobbins SJ, Hayman JA, Livingston PM. Prevalence of health promotion policies in sports clubs in Victoria, Australia. *Health Promot Int*. 2006;21(2):121-9.
9. Kelly B, Chapman K, King L, Hardy L, Farrell L. Double standards for community sports: promoting active lifestyles but unhealthy diets. *Health Promot J Austr*. 2008;19(3):226-8.
10. Eime RM, Payne WR, Harvey JT. Making sporting clubs healthy and welcoming environments: A strategy to increase participation. *J Sci Med Sport*. 2008;11:146-54.
11. Australian Bureau of Statistics. 4901.0 – Children's Participation in Cultural and Leisure Activities, Australia, Apr 2006 [report on the Internet]. Canberra (AUST): ABS; 2006 [cited 2010 Feb 15]. Available from: <http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/4901.0Apr%202006?OpenDocument>
12. Australian Bureau of Statistics. Socioeconomic Indexes for Areas (SEIFA), Data Cube Only, 2006. Canberra (AUST): ABS; 2006.
13. Australian Bureau of Statistics. 4901.0 – Children's Participation in Cultural and Leisure Activities, Australia, Apr 2000 [report on the Internet]. Canberra (AUST): ABS; 2001 [cited 2010 Feb 15]. Available from: <http://www.abs.gov.au/AUSSTATS/abs@.nsf/allprimarymainfeatures/2396F6D4AA80BB49CA256E2A00765A06?opendocument>
14. Hardy L, Okely A, Dobbins T, Booth M. Physical activity among adolescents in New South Wales (Australia): 1997 and 2004. *Med Sci Sports Exerc*. 2008;40(5):835-41.
15. Crisp BR, Swerissen H. Critical processes for creating health-promoting sports environments in Australia. *Health Promot Int*. 2003;18(2):145-52.
16. Corti B, Holman CD, Donovan RJ, Frizzell SK, Carroll AM. Warning: attending a sport, racing or arts venue may be beneficial to your health. *Aust NZ J Public Health*. 1997;21(4 Spec No):371-6.
17. Donaldson A, Hill T, Brnabic A, Finch C, Forero R, Wilson S. *The Sports Safety Policies and Practices of Community Netball Clubs* [study on the Internet]. Sydney (AUST): Northern Sydney Health; 2002 [cited 2009 Apr 24]. Available from: [http://fulltext.ausport.gov.au/fulltext/2002/nsh/SportReport\\_Netball.pdf](http://fulltext.ausport.gov.au/fulltext/2002/nsh/SportReport_Netball.pdf)
18. Wise M, Signal L. Health promotion development in Australia and New Zealand. *Health Promot Int*. 2000;15(3):237-48.
19. Victorian Health Promotion Foundation. *Partnerships for Health Scheme (2003-2006): Funding Guidelines*. Melbourne (AUST): VicHealth; 2003.
20. Healthy Kids School Canteen Association. *Australian State School Canteen Strategies* [guidelines on the Internet]. Sydney (AUST): Healthy Kids SCA; 2008 [cited 2010 Feb 15]. Available from: <http://www.schoolcanteens.org.au/category/33/australian-state-school-canteen-strategies>
21. Communities Sport and Recreation. *Healthy Sport Club Canteens* [article on the Internet]. Sydney (AUST): New South Wales Department of Sport and Recreation; 2009 [cited 2009 Apr 15]. Available from: [http://www.dsr.nsw.gov.au/sportsclubs/ryc\\_ss\\_apr09healthy.asp](http://www.dsr.nsw.gov.au/sportsclubs/ryc_ss_apr09healthy.asp)